§571.203

Figure 4 of §571.202a - Portion of gap above 540 mm height.

Gap Above 540 mm Height Total Gap H-point

[72 FR 25514, May 4, 2007, as amended at 75 FR 67246, Nov. 2, 2010; 77 FR 761, Jan. 6, 2012]

§ 571.203 Standard No. 203; Impact protection for the driver from the steering control system.

S1. Purpose and scope. This standard specifies requirements for steering control systems that will minimize chest, neck, and facial injuries to the driver as a result of impact.

S2. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating of

4,536 kg or less. However, it does not apply to vehicles that conform to the frontal barrier crash requirements (S5.1) of Standard No. 208 (49 CFR 571.208) by means of other than seat belt assemblies. It also does not apply to walk-in vans.

S3. Definitions. Steering control system means the basic steering mechanism

and its associated trim hardware, including any portion of a steering column assembly that provides energy absorption upon impact.

S4. Requirements. Each passenger car and each multipurpose passenger vehicle, truck and bus with a gross vehicle weight rating of 4,536 kg or less manufactured on or after September 1, 1981 shall meet the requirements of S5.1 and S5.2.

S5. Impact protection requirements.

S5.1 Except as provided in this paragraph, the steering control system of any vehicle to which this standard applies shall be impacted in accordance with S5.1(a).

(a) When the steering control system is impacted by a body block in accordance with SAE Recommended Practice J944 JUN80 (incorporated by reference, see §571.5), at a relative velocity of 24 km/h, the impact force developed on the chest of the body block transmitted to the steering control system shall not exceed 11,120 N, except for intervals whose cumulative duration is not more than 3 milliseconds.

(b) [Reserved]

S5.2 The steering control system shall be so constructed that no components or attachments, including horn actuating mechanisms and trim hardware, can catch the driver's clothing or jewelry during normal driving maneuvers.

NOTE: The term jewelry refers to watches, rings, and bracelets without loosely attached or dangling members.

[36 FR 22902, Dec. 2, 1971, as amended at 44 FR 68475, Nov. 29, 1979; 47 FR 47842, Oct. 28, 1982; 58 FR 26527, May 4, 1993; 58 FR 63304, Dec. 1, 1993; 63 FR 28935, May 27, 1998; 63 FR 51003, Sept. 24, 1998; 76 FR 762, Jan. 6, 2012]

§ 571.204 Standard No. 204; Steering control rearward displacement.

S1. Purpose and scope. This standard specifies requirements limiting the rearward displacement of the steering control into the passenger compartment to reduce the likelihood of chest, neck, or head injury.

S2. Application. This standard applies to passenger cars and to multipurpose passenger vehicles, trucks, and buses. However, it does not apply to walk-in vans

S3. Definitions.

Steering column means a structural housing that surrounds a steering shaft.

Steering shaft means a component that transmits steering torque from the steering wheel to the steering gear. S4 Requirements.

S4.1 Vehicles manufactured before September 1, 1991. When a passenger car or a truck, bus, or multipurpose passenger vehicle with a gross vehicle weight rating of 10,000 pounds or less and an unloaded vehicle weight of 4,000 pounds or less is tested under the conditions of S5 in a 30 mile per hour perpendicular impact into a fixed collision barrier, the upper end of the steering column and shaft in the vehicle shall not be displaced more than 5 inches in a horizontal rearward direction parallel to the longitudinal axis of the vehicle. The amount of displacement shall be measured relative to an undisturbed point on the vehicle and shall represent the maximum dynamic movement of the upper end of the steering column and shaft during the crash test.

S4.2 Vehicles manufactured on or after September 1, 1991. When a passenger car or a truck, bus or multipurpose passenger vehicle with a gross vehicle weight rating of 4,536 kg or less and an unloaded vehicle weight of 2,495 kg or less is tested under the conditions of S5 in a 48 km/h perpendicular impact into a fixed collision barrier, the upper end of the steering column and shaft in the vehicle shall not be displaced more than 127 mm in a horizontal rearward direction parallel to the longitudinal axis of the vehicle. The amount of displacement shall be measured relative to an undisturbed point on the vehicle and shall represent the maximum dynamic movement of the upper end of the steering column and shaft during the crash test.

S5. Test conditions. The requirements of S4 shall be met when the vehicle is tested in accordance with the following conditions.

S5.1 The vehicle, including test devices and instrumentation, is loaded to its unloaded vehicle weight.

S5.2 Adjustable steering controls are adjusted so that a tilting steering wheel hub is at the geometric center of the locus it describes when it is moved